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ABSTRACT

This document presents six observation schedules designed to assist the teacher in discovering patterns in observed behaviors. Schedules provide a carefully defined focus through which patterned relationships are seen between behaviors performed by certain actors in various settings and contexts. Completion of these observation schedules should help eliminate some of the frustration a teacher feels while standing before a class, unable to get a discussion going. The schedules indicate that thoughtful, sustained student participation in class discussions is not merely the product of student personalities, but of a subtle, patterned "negotiation" between teacher and students. (Author/MJM)

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A TRAINING PROGRAM IN IMPROVING OBSERVATIONAL SKILLS: A SYSTEMATIC OBSERVATION OF CLASSROOM VERBAL INTERACTION

Developed by:

The Project in Ethnography in Education
State University of New York at Buffalo

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A TRAINING PROGRAM IN IMPROVING OBSERVATIONAL SKILLS:

A SYSTEMATIC OBSERVATION OF CLASSROOM VERBAL INTERACTION

Developed by:

The Project in Ethnography in Education
State University of New York at Buffalo
USOE Grant #OEG-0702052725

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INTRODUCTION TO THE SCHEDULES

By Allen G. Smith

Observation schedules are tools which let you discover patterns in observed behaviors. Schedules provide a carefully defined focus through which you can see patterned relationships between behaviors performed by certain actors, in various settings and contexts. The six schedules in this packet all address a single curiosity and were designed following the procedures outlined in A Training Program in Improving Observational Skills:

> A curiosity was outlined,
>
> Precise, discrete categories of behavior relevant to that curiosity were defined, and then
>
> Simple, parsimonious schedule formats were designed which code occurrences of the defined behaviors by certain actors, in specified contexts and settings.

The Curiosity

> What is the flow of talk during classroom discussions? Who speaks, and when do they speak? What can and does the teacher do to shape and influence that flow?

Most teachers have faced the frustration of standing before their class, unable to get a discussion going. These schedules are designed to help you monitor those discussions to understand how the teacher by his behavior shapes the behavior of his students. The schedules let you see that thoughtful, sustained student participation in class discussions is not merely the product of student personalities, but of a subtle, patterned, "negotiation" between teacher and students.

The schedules will also perhaps help you see another, more hidden type of patterning in the class. These patterns, which we call the "hidden curriculum" are seldom conscious and can often be seen only with the aid of schedules. By "hidden curriculum," we mean those things that are outside the stated curriculum, but which, nonetheless, the children regularly learn in the class. For example, let us say that your schedule reveals that a particular teacher response regularly discourages further talk by the student. This kind of pattern would of course be relevant to the curiosity about talk flow and the influences upon it. But, suppose you also found that the teacher consistently gave that discouraging response to a particular student or kind of student (for example, "slow students," "troublemakers," "Puerto Ricans, etc.). It would not take long for those students to perceive the pattern (perhaps subconsciously), and opt out of discussions. More ominously, those categories of student may opt out of other classroom activities as well. The cumulative effect of all this might be to limit the access of certain categories of individuals to the information and skills taught by the classroom curriculum.

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The six schedules in this packet, and the questions for analysis included with each, were designed to reveal patterns in both the "overt" and "hidden" levels of classroom interaction.

Suggestions for Using the Schedule Packet

The packet is divided into six sections. Each section takes one schedule--describes it, describes how to use and how to analyze your codings. The schedules can be used on either live or taped behavior. If possible, it is always better to use taped behavior since you can then apply all six schedules to the same bit of classroom discussion (if you can identify voices, audio tape is fine for all but Schedule VI, which requires that you be able to see the people talking).

Whether taped or live, though, patterns can only be identified over time. You don't make conclusions based on a ten minute observation; use the schedules several times on several classroom discussions before diagnosing the predominant patterns in that class.

The schedules can be used on your own or another's class, either for diagnosing or monitoring. By "diagnosing," we mean discovering the patterns in the class. As you or the teacher you observe try to change behaviors you can then use the schedules to "monitor" how changes in your behavior affect the overall talk patterns.

You will notice that each schedule asks you to identify the students who are speaking. When diagnosing, it is certainly best to do this. But if your diagnosis reveals, for example that you or the teacher you are observing behaves differently toward boys than toward girls, you may in the monitoring phase only code whether the student speaking is a boy or a girl.

Finally, as this example suggests, the format and codings of these schedules are neither written in stone nor exhaustive of the curiosity. There are too many variables affecting talk flow to be monitored in only six schedules. Student behavior, and nonverbal signals are barely touched here, for example. Further, all of the information relevant to even these six schedules cannot be handled by the coding symbols used. If you exhaust their usefulness or if you feel you need more information than the categories and symbols provided, tinker with them. Design your own schedules; add new symbols. These six schedules are only a beginning.

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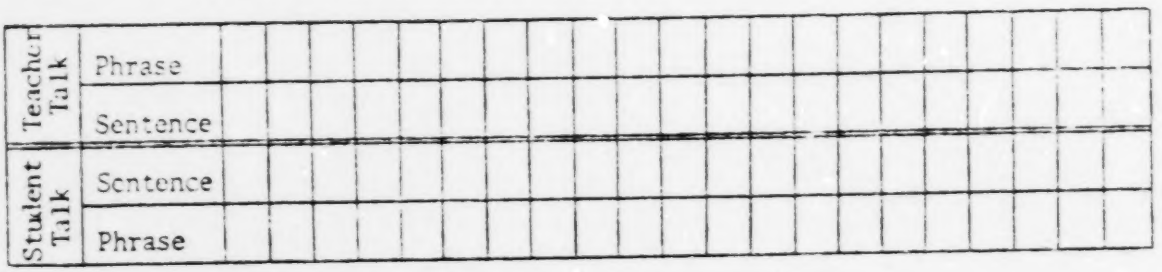
SCHEDULE I: TALK FLOW



Introduction

This first schedule provides a gross account of the flow of talk in the class. It monitors the amount of talk, measured in sentences; it indicates who spoke when; and it reveals the transitions between speakers. The behavior is talk, sentences and phrases. The actors are variable; whoever talks will be coded.

The Schedule

A. Behaviors to be Coded

Within the context of the classroom discussion, you will be monitoring and coding all talk by the teacher, and all talk by the students related to the discussion. Within this general category, the principal discrimination is between sentences and phrases.

Sentence - the expression of a complete thought in a complete sentence. When observing, it is not always easy to differentiate a sentence. When in doubt, listen for complete thoughts.

Phrase - any utterance which is not in the form of a complete, grammatical sentence. For example, "OK," "Uh-huh," "Yeh," "In 1492," "to discover the New World," etc.

B. Using the Schedule

The coding of this schedule is done sequentially. That is, only one mark should be made in each vertical column on the Schedule. Sequential

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coding lets you monitor the "flow" of behavior in the class; it lets you see when something was done, as well as what was done.

Three coding symbols are used with this schedule:

1. / Tally mark. This is the basic coding symbol. Use it to record the occurrence of one of the defined behaviors. Each tally in the "sentence" row indicates that one sentence has been spoken; each tally in the "phrase" row indicates that one phrase has been spoken.

2. [MG] Student's initials. When a student speaks, use the student's initials as the first coding in his utterance. If the utterance by that student is longer than one phrase or sentence, continue the coding using tally marks for each sentence.

3. X Interruption. If one speaker interrupts another, the first coding of the second person's utterance should be an "X," followed by tally marks, if necessary. If the person doing the interruption is a student, code his initials as the second entry, followed if necessary by tally marks. If the student's interruption is only one sentence or phrase, code the X and initials in the same box.

Observe a class discussion, either live or recorded. As you listen to the talk, note who is doing the talking and whether they are talking in sentences or phrases. As that person speaks, code a tally (or one of the other symbols, if appropriate) for each sentence or phrase spoken. There should be but one mark in each column.

Remember: patterns are what matters, not isolated behaviors. If you get lost, stop and catch your breath before continuing. If there is a pattern, a few seconds won't change it.

Sample Coding

Teacher Talk	Phrase				/																		
	Sentence	/	/			/	/		X	/	/				.	/	/		/	/	/		
Student Talk	Sentence											MS	/	/	/			/					
	Phrase			MG				X AB														X	

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The teacher is lecturing, and asks a question. MG gives a brief response; the teacher replies, "OK," and begins lecturing. AB interrupts, begins to say something, but the teacher interrupts before she can finish her sentence. The teacher resumes lecturing, and asks a question. MS gives an extended answer. The teacher responds with another question to which MS gives a one sentence reply. The teacher resumes the lecture, MS interjects with "Mrs. B-" but the teacher ignores her and continues talking.

Until you are familiar with the schedule, you may wish to code using tally marks only. Add the other symbols as you become skilled at using the schedule.

Also, you may find it occasionally useful on this and the other schedules to make brief notes about an utterance beneath the column in which it is coded. For example, as AB spoke, a fight may have broken out across the room, precipitating the teacher's interruption. An interruption to break up a fight is certainly different from an interruption for some other reason. A brief note may help you sort these out.

Questions for Analysis

1. Who was doing most of the talking, the teacher or the students?

2. Which students were doing most of the talking, and which did none? Do those who were doing the talking share some characteristic? Do those who did little or no talking have anything in common? If you are observing your own class, you will of course know more about the characteristics of students and be able to group students along many dimensions ("troublemakers," "fast," etc.). If, however, you are observing an unfamiliar class, you can still group them by certain visable characteristics ("boy vs. girl," "black vs. white," etc.), but you may also find it useful to talk to the teacher and see how she categorizes the students.

3. Were the students generally speaking in full sentences? Were their utterances extensive or brief, relative to the teacher's?

4. Look at the patterns of transition from the teacher to student talk codings. Were there many teacher-student-teacher-same student patterns? Or, was the pattern one of teacher talk-student talk-teacher talk-new student talk, etc? Were the same students, or kinds of students, consistently involved in the two patterns?

5. In those instances where there were extended interchanges between the teacher and a given student, did the length of that student's utterances increase over time? Decrease? Were there fewer "phrase" codings?

6. Were there transitions from one student talking to a different student without teacher talk in between? Which students did this? Do they have other things in common?

7. Were teacher interruptions of student talk frequent? Which students or kinds of students were interrupted? Were there student interruptions of teacher talk? Which students or kinds of students did the interrupting?

8. Look at the overall pattern of talk in the classroom. Is there a development in that pattern? For example, did the class begin with a period of extended teacher utterances, followed by a period of teacher-student exchanges, and end with another period of teacher talk?

Conclusion

This schedule reveals the pattern of talk flow in the classroom. This schedule is simple, but much can be learned from it, as the "questions for analysis" show. Besides an estimate of relative quantities of talk, you can also see patterns of interaction between teacher and student, student and student. As you look at the kinds of students involved in the various patterns, the hidden curriculum of the class begins to emerge.

In the next schedules we will continue our focus on the talk flow, but we will now look for aspects of the teacher's behavior which shape that talk flow--behaviors, for example, which encourage some students to talk while discouraging others; which affect the amount and kind of student utterances, etc. At least one of those pattern shaping behaviors--interruptions--has already been monitored in this schedule.

SCHEDULE I: TALK FLOW

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Teacher Talk	Phrase																						
	Sentence																						
Student Talk	Sentence																						
	Phrase																						

Teacher Talk	Phrase																						
	Sentence																						
Student Talk	Sentence																						
	Phrase																						

Teacher Talk	Phrase																						
	Sentence																						
Student Talk	Sentence																						
	Phrase																						

Teacher Talk	Phrase																						
	Sentence																						
Student Talk	Sentence																						
	Phrase																						

SCHEDULE I: TALK FLOW

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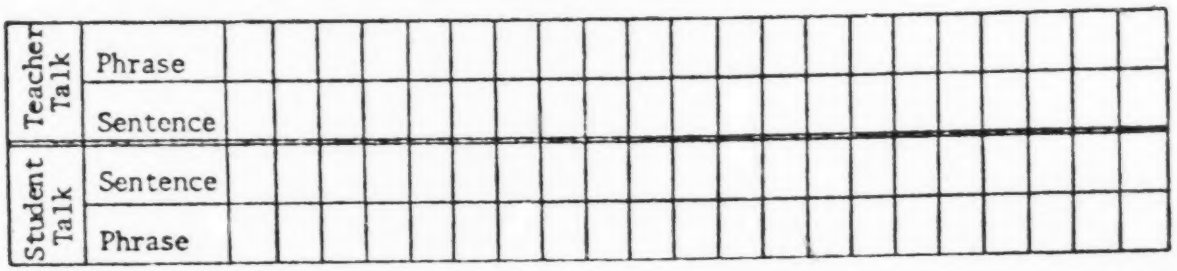

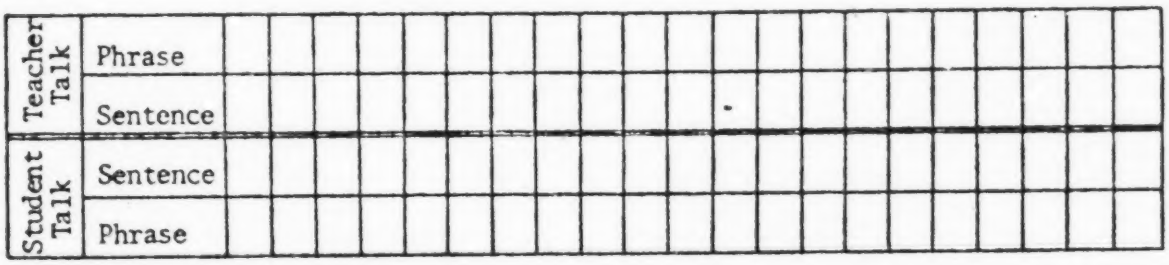

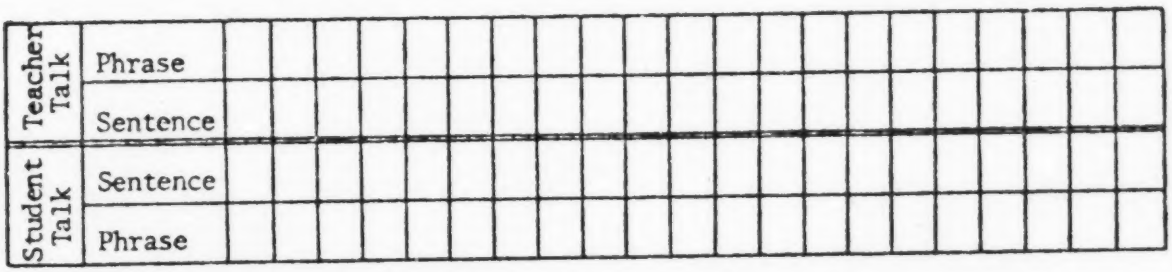

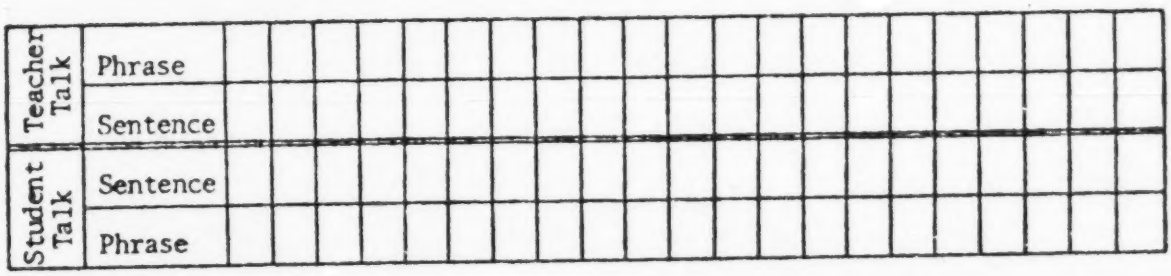

SCHEDULE II: TEACHER TALK INVENTORY

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Teacher Talk	Direct																							
	Describe																							
	React																							
	Question																							
Student Talk	Sentence																							
	Phrase																							

Introduction

You have monitored the general flow of talk within the classroom. As a first step toward uncovering the teacher behaviors which shape this flow, you will now break the "Teacher Talk" category into smaller sub-categories, so that you will be able to determine not only when and how much the teacher talked, but also the kinds of utterances the teacher was making.

The Schedule

A. Behaviors to be Coded

Once again you will be monitoring all teacher and student talk within the context of a teacher directed classroom discussion. You will still be coding sentences and phrases, but you will now be making a further discrimination in the "Teacher Talk" category: Whenever the teacher talks, code whether he or she is directing, describing, reacting, or questioning.

Direct - any talk by the teacher which concerns classroom behavior management. This would include disciplining, telling students to rearrange their desks, telling students to get out a book, telling students to write something down, etc.

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Describe - declarative, instructional statements by the teacher. These would include lecturing, defining, describing, etc.

React - any comments by the teacher about what a student has just said. These would include such reactions as "uh-huh," "OK," "good," "that makes sense," etc. NOTE: Reactions which take the form of questions should be coded as questions, not reactions.

Question - any utterance by the teacher in the grammatical form of a question.

B. Using the Schedule

Again, the coding is done sequentially. The coding symbols are identical to those in Schedule I, with one important addition:

1. / Tally mark. Again the basic code. Use to code sentences and phrases in the "Student Talk" category, but only to code sentences in the "Teacher Talk" category.

2. 0 Teacher phrases. Since there is no sentence/phrase discrimination for the teacher talk on the schedule itself, use this symbol to code the use of phrases, or incomplete sentences, by the teacher.

3. X Interruption. Code as you did in Schedule I: anytime an actor interrupts another the first entry for his or her utterance should be an "X."

4. [MG] Student's initials. As in Schedule I, use as the first coding in a student's utterance.

NOTE: If you are using this schedule to monitor rather than diagnose, or if you are observing an unfamiliar class, you may wish to replace the student initials with category labels. For example, if earlier diagnosis has indicated that you, the teacher, talks differently to girls than to boys, and you are trying to monitor changes in your behavior toward each, you may prefer using a "B" instead of boys' initials, and "G" instead of girls'.

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Sample Coding

Teacher Talk	Direct	0	/																				
	Describe			/	/	/								/	/				/	/			
	React									X			0										
	Question										/					/					/	/	
Student Talk	Sentence						FC	/	/			/						/					FC
	Phrase																AR						

Teacher says "OK," asks the class to sit down and be quiet. Teacher begins to lecture on democracy. Student "FC" relates an event reported on last night's news. Teacher interrupts, saying "Uh-huh. But what does that have to do with democracy?" Student "FC" tells in one sentence how he thinks it relates. Teacher says "OK," and resumes lecture, then asks a question. Student "AR" answers with a phrase and a sentence. Teacher resumes lecture without commenting on what AR has said. The teacher then asks a rather long question, which FC answers.

Again, until you become proficient at coding you may wish to use only the sentence/phrase codings, and add the "interruption" and "student initial" codings later.

Questions for Analysis

1. If you are observing live behavior, look at the talk flow revealed by this schedule. Is it the same as the pattern you found with Schedule I? Different? How?

2. What kinds of teacher talk predominate? What proportion of the class was spent with directing the students? Questioning? etc.

3. What kinds of teacher talk precede each student utterance? Were students talking only when asked questions, or were they also talking at other times?

4. What variety was there in the teacher's kinds of talk following utterances by different students, or kinds of students? Were some students being encouraged to express themselves with questions while others were receiving one word responses to their utterances?

5. Which students, or categories of student were speaking after questions from the teacher? This can suggest who was being encouraged to speak, but more information is needed before we can really know (see Schedule III).

6. Which students or kinds of student were speaking in extended utterances? Which kinds of teacher talk precede and follow each? Does this suggest a pattern of kinds of teacher talk encouraging or discouraging talk by students?

7. Where extended interchanges with the same student occur, what kinds of teacher talk are interspersed between utterances by a given student? Does this suggest the teacher's strategy for extending a student's participation? Does it suggest what kinds of responses to a student's utterance stimulate further talk?

8. Who did the interrupting, the teacher or students? Which students? Interrupting, and the power to do it, exert tremendous influence over the flow of talk in a classroom. When the teacher was doing the interrupting, was it to direct, describe, question, or respond? When the teacher interrupted, did the same or different student speak next? Interruptions which close a student off are different from those which perhaps stimulate further talk. These interruptions will be explored more fully in a later schedule.

Conclusion

Your analysis of this schedule should tell you more about that talk flow pattern revealed in Schedule I, and the hidden curriculum underlying it. You should now have a better idea of how different kinds of teacher talk influence the overall talk flow. But you probably have also found that the schedule generates more questions than it answers. What kinds of questions does the teacher ask? What kinds of responses is he giving to the student utterances?

To answer these questions requires schedules of even finer focus. To these we will now turn.

SCHEDULE II: TEACHER TALK INVENTORY

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Teacher Talk	Direct																								
	Describe																								
	React																								
	Question																								
Student Talk	Sentence																								
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SCHEDULE II: TEACHER TALK INVENTORY

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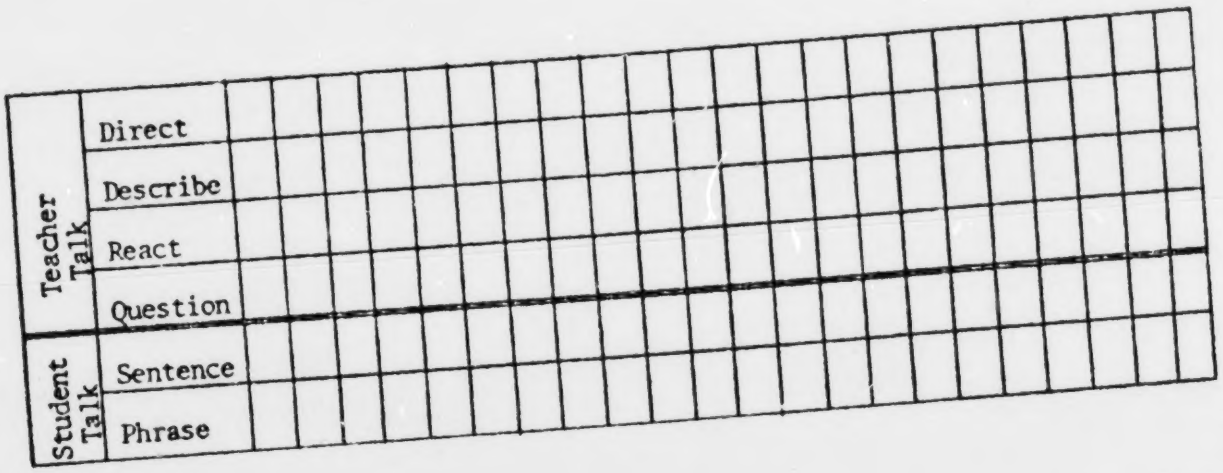

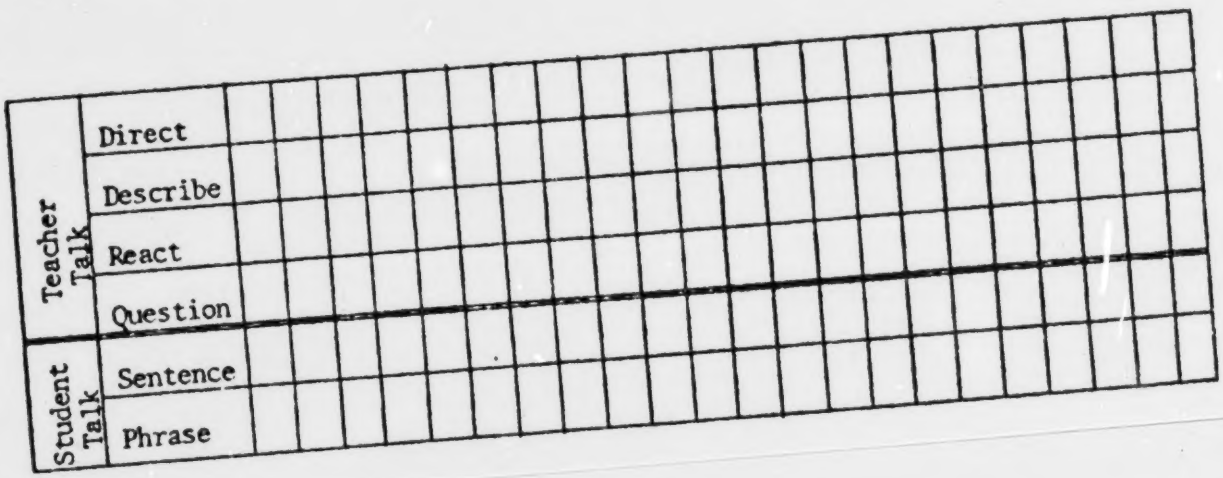

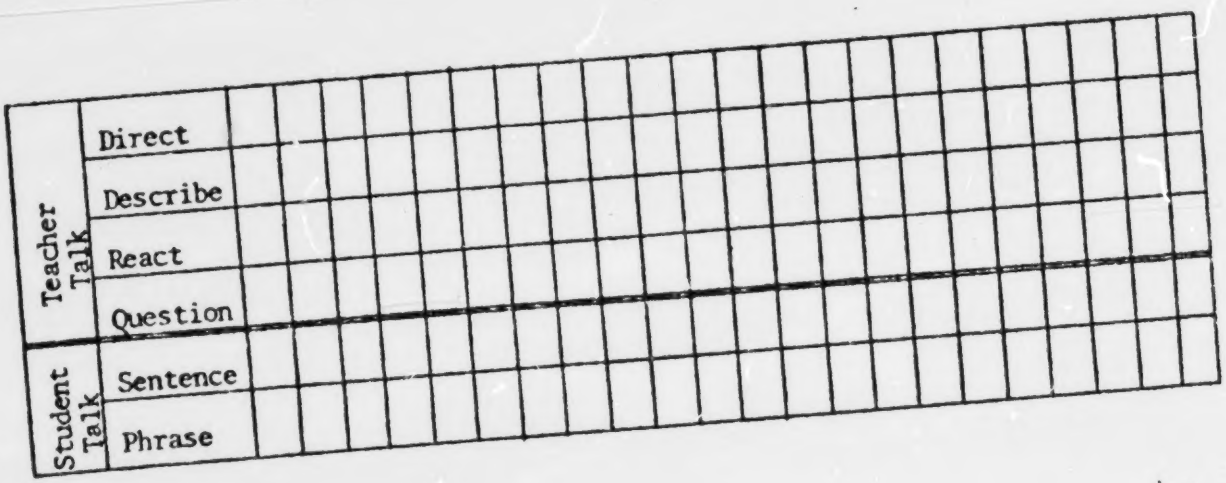

SCHEDULE III: QUESTIONING

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Teacher Talk	Other Teacher Talk																				
	Rhetorical Question																				
	Information Question																				
	Complex Question																				
Student Talk	Information Response																				
	Complex Response																				
	Other																				

Introduction

In this schedule you will be refining your focus even further. From an interest in an inventory of the kinds of teacher talk, you will now focus on one kind of talk, teacher questions, while still keeping a record of the overall talk flow pattern.

Questions, of course, are an essential tool for stimulating classroom discussion. With this schedule you will be monitoring the kinds of questions the teacher asks, the kinds of responses these get from the students, and their effect on classroom discussion.

The Schedule

A. Behaviors to be Coded

As you are by now becoming skilled in the use of schedules, you will be asked to make more coding decisions on this schedule. While more complex, the schedule is essentially the same as Schedule I; you are observing the flow of talk within the class discussion. Sentences and phrases will still be coded, but now you must decide when the teacher talks whether that talk is a question or other talk. If it is a question, is it rhetorical, information seeking or a complex question?

Further, you will be deciding what kinds of answers the students give to the teacher's questions; are they responding with simple information or with complex analysis?

Teacher Talk

Other Teacher Talk - any talk by the teacher not in the grammatical form of a question.

Rhetorical Question - any question asked by the teacher for which no answer is demanded. A good rule of thumb for differentiating rhetorical from other kinds of questions is: does the teacher provide an opportunity for response? If there is no pause, code the question as rhetorical, even if a student interrupts to answer it.

Information Question - any question by the teacher which asks the students to recall or recount information.

Complex Question - any question which asks the students to synthesize, and analyze. Questions which ask students to reconcile discrepant information. Questions which require the student to take ideas and combine them.

Student Talk

Information Response - any utterance by a student, which has been given in response to any teacher question, which simply supplies information, as defined above.

Complex Response - any utterance by a student in response to any teacher question which includes analysis, synthesis, etc., as defined above. Responses showing original thought.

Other Student Talk - talk by student which is not in direct response to a teacher question.

B. Using the Schedule

You will again be coding sequentially. The symbols are the same as in Schedule II with some additions and one change in the rule for coding phrases.

1. / Tally mark. Use as before, but now use it only to code sentences, in both the Teacher and Student Talk categories.

2. 0 Phrases. Use for coding all phrases, whether they are uttered by the teacher or by the student.

3. G Question addressed to the general class, and which receives a volunteered response. When the teacher asks a question, if he addresses the question to the general class and students volunteer answers, use a "G" in place of the final tally mark in the question (see sample coding).

4. g Question is addressed to the class and the teacher selects from among raised hands. Code in the same manner as "G," above.

5. [AG] Student's initials. Use as "G" and "g" above are used to code question directed toward specific student. Also use as the first code in a student utterance, regardless of the kind of question or whether the response is volunteered or called for by the teacher.

6. X Interruption. Same coding as in earlier schedules.

Sample Coding

Teacher Talk	Other Teacher Talk		/	/													0				
	Rhetorical Question	/																			
	Information Question				/	G							X	g							
	Complex Question									FC											
Student Talk	Information Response						FC	/	/		/	/			MC	/					
	Complex Response																				
	Other Student Talk																	/	/		

Teacher opens with a rhetorical question, then lectures briefly. She then directs an information-seeking question to the group, and FC volunteers an answer. FC's answer is three sentences long. The teacher then asks FC to reconcile what he said with something said earlier by MC (coded as a complex question). FC starts to answer, but is interrupted by the teacher, who directs a question to the group and calls upon MC, who's hand was raised. MC supplies the information, the teacher gives a one-phrase response ("all right"). MC then changes the subject and speaks about something else.

This is a complex schedule. If the coding discriminations are too bewildering at first, eliminate the "G" and "g" codings until you feel more comfortable using the schedule.

Questions for Analysis

1. If you are using the schedule on live (not taped) behavior, analyze the talk flow using the "Questions for Analysis" from Schedule I.

2. What proportion of the total amount of teacher talk is questioning behavior?

3. What is the relationship between instances of student talk and teacher questioning? Does most student talk occur after teacher questions? What proportion of student talk is in answer to teacher questions (Information and Complex Responses), and what proportion is "Other Student Talk?"

4. What kinds of questions are used predominately by the teacher, rhetorical, information, or complex?

5. Do teacher questions receive student responses of a like type? That is, do information questions receive information responses; do complex questions receive complex responses? Which students or kinds of student give responses of matching type? Of different type?

6. Are the student responses to questions extensive, spoken in full sentences? Which students or kinds of student respond with extensive utterances?

7. Is there an overall pattern in the "Teacher Talk" category? For instance, is there an opening period of some duration where "Other Teacher Talk" predominates (perhaps a lecture), interspersed with shorter periods of teacher questions followed by student responses? Within those questioning periods, is there a pattern, for example, of several information questions to a given student followed by complex questions to that same student? Or is the information/complex question mix more haphazard? What can you infer from this about the teacher's "questioning strategy?"

8. What pattern emerges from the "G," "g," and "student initial" codings for questions? Does the teacher generally address questions to specific individuals in the class ("student initials" coding), select from raised hands after a general question ("g"), or allow students to volunteer answers ("G")?

9. Bearing in mind your findings from the preceding analysis, which students are answering questions? Who volunteers answers? Who gets selected from among raised hands? Who gets questions directed toward them? Who interrupts and gets interrupted?

   Which students answer complex questions? Do they give complex responses for these questions? What kind of responses (information or complex) are the various students giving?

10. Repeat the above analysis, but this time focus upon <u>categories</u> of students, rather than upon individuals.

    Do the students who were acting similarly and being treated similarly by the teacher (as revealed in 9 above) share any attributes such as age, sex, intelligence, personality, social class, etc.?

    If some such categories are suggested by this diagnosis, you may wish to use the schedule again, this time using <u>category labels</u> instead of student initials in your coding. Does the teacher consistently behave differently toward different categories of student?

Conclusion

Your analysis has probably revealed many patterns showing the effects of teacher questions upon the flow of talk in the classroom. On the "overt" level your diagnosis might suggest ways to intervene in the pattern to stimulate more and better student talk. You might, for example, see that complex questions are coming "out of the blue," with no real preparation, and are thus receiving "information" responses. You might decide then to employ questioning strategies, with information questions preparing the way for complex questions.

But what about those other, more "hidden" patterns in your analysis? What of patterns suggesting that the teacher behaves differently toward different "kinds" of children? In eagerness to intervene in the overt patterns, these hidden patterns can become even more dramatic; if one goes to the "talkers" in the class to improve the amount and kind of Student Talk, the "nontalker's" talk may dwindle.

These hidden patterns become self-fulfilling prophecies; students treated consistently in a given manner come to behave in a manner consistent with their treatment. Effective intervention involves altering patterns at the hidden as well as overt levels.

SCHEDULE III: QUESTIONING

BEST COPY AVAILABLE

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

SCHEDULE III: QUESTIONING

BEST COPY AVAILABLE

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

Teacher Talk	Other Teacher Talk																					
	Rhetorical Question																					
	Information Question																					
	Complex Question																					
Student Talk	Information Response																					
	Complex Response																					
	Other																					

SCHEDULE IV: TEACHER RESPONSES

BEST COPY AVAILABLE

Teacher Talk	Other Teacher Talk																				
	Verbal Reward																				
	Critique																				
	Sustain/Extend Question																				
Student Talk	Sustain/Extend																				
	Other Student Talk																				

Introduction

In Schedule III you focused upon one of the four categories of teacher talk monitored in Schedule II --Questions. In this schedule you will back up again and focus on yet another category of teacher talk--teacher reactions plus those questions asked by the teacher in direct response to a student utterance. We will call these two kinds of teacher behavior "responses" and monitor the effect of teacher responses on the overall talk flow pattern.

In format and complexity this schedule is similar to Schedule III.

The Schedule

A. Behaviors to be Coded

As always, all talk by the teacher, and all student talk within the context of the classroom discussion will be monitored. Sentences and phrases will be monitored. The special focus within this broad category will be upon teacher responses to a student utterance; does the teacher give the student verbal reward, a critique, or ask him to sustain or extend his utterance? Further, what is the student's response to the teacher's response? Does the student sustain or extend his earlier utterance?

Teacher Talk

Other Teacher Talk - any talk by the teacher not in direct response to a student utterance (for example, lecturing, directing, disciplining, etc.). Additionally, any response which does not fall into one of the categories below should also be coded as "Other Teacher Talk."

Verbal Reward - positive comments by the teacher about what a student has just said. Statements indicating that the student's utterance was satisfactory, good, appropriate, etc.

Critique - any utterance finding fault with what a student has just said.

Sustain/Extend Question - any utterance in the grammatical form of a question, made in response to a student utterance, which asks that same student to give more information, to say more, to analyze, to synthesize additional information, etc.

Student Talk

Sustain/Extend - any utterance by a student which continues from an earlier utterance by that same student.

Other Student Talk - talk by a student which neither sustains or extends an earlier utterance, as defined above.

B. Using the Schedule

Again, the coding is sequential and the units are sentences and phrases. The symbols are by now familiar:

1. / Tally mark. Sentences or complete thoughts spoken by teacher or student.
2. 0 Phrases. Code each time someone makes an utterance not in the form of a complete grammatical sentence or a complete thought.
3. X Interruption. Code as in other schedules.
4. ✓ Questions. Use instead of tallies to code questions in the "Other Teacher Talk" and "Other Student Talk" categories. Do not use in the "Sustain/Extend Question" category, however, since by definition all codings there are questions.

5. [SD] Student's Initials. Use as you did in Schedules I and II for the first entry in a student utterance.

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Sample Coding

Teacher Talk	Other Teacher Talk	/	√				'	/	√										X	/	/
	Verbal Reward					0									0						
	Critique															/					
	Sustain/Extend Question											/									
Student Talk	Sustain/Extend												/	/			/	/			
	Other Student Talk			MO	/					AF	/										

Teacher is lecturing, asks a question. MO answers the question, the teacher says "good," and resumes lecturing. Teacher asks another question, AF answers, teacher asks a sustaining question, AF answers the question. The teacher at this point says, paradoxically, "Great. You're wrong about one thing though..." and continues. This response is coded first as a Verbal Reward phrase ("Great"), and then as a Critique sentence. AF responds to the critique, although no teacher questions were asked. The teacher interrupts AF and resumes lecturing.

Remember: As in the sample coding, a student can make a "Sustain/Extend" utterance without being asked a "Sustain/Extend Question." Also, a student can only make a Sustain/Extend response if he has made an earlier utterance on the same topic. It is conceivable that some reasonable time might elapse between that earlier utterance and the sustaining or extending utterance. For example, MO might have spoken after AF and extended his (MO's) earlier utterance.

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Questions for Analysis

1. Again, repeat the analysis of talk flow if you are using this schedule on live behavior.

2. Is the teacher giving some response to every student utterance? How often does "Other Teacher Talk" follow a student utterance?

3. Which students are receiving which kinds of teacher responses? What kinds of students are receiving these responses? Which students or kinds of student receive no response?

4. Which students are doing the talking? Are their utterances lengthy, spoken in full sentences? What kinds of student are doing the talking?

5. What students or kinds of student are talking after teacher questions? Which are talking, like AF in the example, in the absence of questions?

6. Which students or kinds of student are having their utterances sustained by the teacher? How many times does the teacher ask sustaining or extending questions of the same student before moving on to something else? Which students in fact sustain or extend their utterances following a "sustain/extend" teacher response?

7. How often do students seem to be sustaining each other? How often are there "✓'s" in "Other Student Talk," followed by a "Sustain/Extend" utterance by a student?

8. Whenever a student speaks and does not sustain his utterance after the teacher's response, we call this "closure." How often did closure occur in your schedule? Which students or kinds of student received closure?

9. Who is doing the interrupting? When do interruptions occur? Which students or kinds of student are being interrupted? When the teacher response is to interrupt, does it stimulate or close off further utterances by that student?

10. Is there an overall pattern in teacher responses and their effect? Is the teacher more apt to give sustaining responses early in a class, but less likely toward the end? Do student utterances change in character during the class?

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Conclusion

Perhaps the most common cause for unsuccessful classroom discussion is the teacher's method of responding to student utterances. A "Verbal Reward" might function as a "closure" if in the process of rewarding the student is discouraged from continuing or extending his utterance. If the teacher's objective was to encourage students to talk more and if the schedule revealed that his verbal rewards were not stimulating continued student talk, he might wish to re-evaluate his strategy for responding to students' utterances.

Further, in the real world of behavior, responses occur not only after utterances, but during them as well. What the listener does with his facial expressions and body postures determines, in a sense, what the speaker will say. This schedule has focused only upon verbal responses following student utterances. But while the students were speaking, the teacher may have appeared bored, distracted, encouraging, etc.; you have no record of that. Such behaviors could provide a focus for another schedule, one of your own design.

Additionally, as in all the schedules, there could be even further refinement of the focus. No distinction has been made in this schedule between "sustaining" and "extending," for example. You may find that this distinction is critical for your interests. If so, design a schedule which addresses this distinction.

SCHEDULE IV: TEACHER RESPONSES

BEST COPY AVAILABLE

Teacher Talk	Other Teacher Talk																						
	Verbal Reward																						
	Critique																						
	Sustain/Extend Question																						
Student Talk	Sustain/Extend																						
	Other Student Talk																						

Teacher Talk	Other Teacher Talk																						
	Verbal Reward																						
	Critique																						
	Sustain/Extend Question																						
Student Talk	Sustain/Extend																						
	Other Student Talk																						

Teacher Talk	Other Teacher Talk																						
	Verbal Reward																						
	Critique																						
	Sustain/Extend Question																						
Student Talk	Sustain/Extend																						
	Other Student Talk																						

SCHEDULE IV: TEACHER RESPONSES

BEST COPY AVAILABLE

Teacher Talk	Other Teacher Talk	
	Verbal Reward	
	Critique	
	Sustain/Extend Question	
Student Talk	Sustain/Extend	
	Other Student Talk	

Teacher Talk	Other Teacher Talk	
	Verbal Reward	
	Critique	
	Sustain/Extend Question	
Student Talk	Sustain/Extend	
	Other Student Talk	

Teacher Talk	Other Teacher Talk	
	Verbal Reward	
	Critique	
	Sustain/Extend Question	
Student Talk	Sustain/Extend	
	Other Student Talk	

SCHEDULE V: USE OF SILENCE

BEST COPY AVAILABLE

Teacher																					
Silence																					
Student																					

Introduction

In this and the next schedule the focus shifts away from kinds of teacher talk as variables, to some other aspects of the teacher's behavior and their effec on the flow talk. In this schedule you will monitor silence and its use. To do this requires a schedule format and codings somewhat different from the earlier schedules.

Silence is something we don't often notice in discussions, but its use may be a critical factor in determining the shape of classroom interactions, in determining who will talk when.

The Schedule

A. Behaviors to be Coded

As always, you will be coding the flow of talk within the classroom discussion. Questions, interruptions, etc. will be coded with symbols, but the critical category here is silence as these silences are interspersed throughout the discussion.

Teacher Talk - Any utterance by the teacher.

Student Talk - Any utterance by the student in the context of the class discussion.

Silence - Any period longer than one second during which neither the teacher or students are talking.

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B. Using the Schedule

As in the other schedules, the codings are sequential; only one mark should be made in each vertical column. Unlike the earlier schedules however, you will be coding in time intervals; a mark should go on the schedule after each second. You will probably find yourself falling into an unconscious rhythm, but until then you should mentally count, "one thousand one," etc. and code for talk or silence.

The symbols are essentially unchanged from earlier schedules, with the exception of the tally, which now measures time rather than sentences.

1. / Tally mark. At the end of each one second interval, unless one of the four behaviors described by the following symbols occurs, you should place a tally mark on your schedule. If the teacher is talking, and neither interrupting or questioning, a tally should be entered in the "Teacher Talk" row after each second of talk. Similarly for students. All codings in the "Silence" row should be tallies.

2. ✓ Questions. Use as you did in Schedule IV to code the occurrences of questions in the talk categories.

3. - Extended questions. If it takes several seconds for the teacher or student to phrase a question draw a slash through the appropriate number of boxes after the "✓" to indicate that there is only one question.

4. X Interruption. Use as you have in earlier schedules.

5. [MG] Student initials. When a student speaks, use the students' initials as the first coding in his utterance. If the utterance is longer than one second, place tally marks after the initials.

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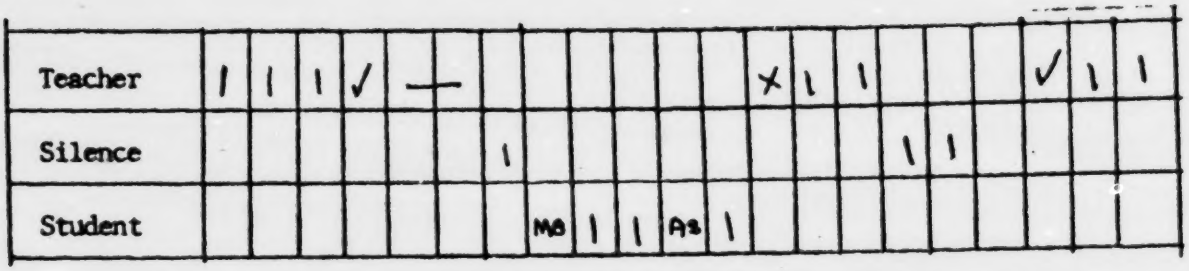
Sample Coding



The teacher is lecturing and asks "Who can tell me what we mean by democracy?" There is a brief one second silence and MG answers, "Democracy is a system of government." AS then says, "That doesn't say what it is--." The teacher interrups AS with, "Let MG finish, AS." There then follows two seconds of silence while the teacher waits for MG to finish, after which the teacher asks rhetorically, "You don't want to finish? Let's go on then."

Initially, until you become adept at attending to silences (a skill which few of us have), and at maintaining the coding rhythm, you may want to code all behaviors with tallymarks. You will miss some patterns this way, but preserve your sanity. Gradually, as you become more skilled, add the other coding discriminations (and maybe add some of your own choosing).

Questions for Analysis

1. How long were the silences generally, especially those following a teacher question?

2. Who was breaking the silences, especially those following a teacher question? Who was breaking the longer silences? If students are breaking them, which students or kinds of student?

3. How does the use of silence fit into the overall talk flow in the class? For example, did the class begin with uninterrupted teacher talk, move to a question-silence-teacher talk period, and end with extended teacher talk?

4. Over time (that is, using the schedule periodically from the first class in September to the last class in June) does a pattern of silence usage emerge within the class? Do conventions for the maximum allowable lengths for silences, about who will break silences, seem to be negotiated?

5. If the schedule is being used to monitor changes, what effect does consciously tolerating extended silences, and being less willing as the teacher to break them, have on the amount and kind of student talk (as reflected in this and other schedules)?

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6. If you have been coding from tape, review your codings on Schedule III for the same behavior, and try to match the question-response codings on the two schedules. Does the teacher seem to tolerate more silence before answering questions addressed to certain students or kinds of student? What does this suggest about the hidden curriculum in that class?

Conclusion

Whoever controls the silences in a classroom or meeting exerts tremendous influence over the talk flow. There seems to be a limit to how much silence any of us can tolerate in a conversation. Sooner or later, someone must break the silence and speak. Too often, it is the teacher who breaks it. Sometimes certain individuals or kinds of student consistently do the breaking. Sometimes the teacher tolerates more silence with some students than with others. In any event, the use by the actors of silences affects the flow of talk. Monitoring these uses of silence may let you make changes in that flow.

SCHEDULE V: USE OF SILENCE

BEST COPY AVAILABLE

Teacher																						
Silence																						
Student																						

Teacher																						
Silence																						
Student																						

Teacher																						
Silence																						
Student																						

SCHEDULE V: USE OF SILENCE

BEST COPY AVAILABLE

Teacher																						
Silence																						
Student																						

Teacher																						
Silence																						
Student																						

Teacher																						
Silence																						
Student																						

SCHEDULE VI: USE OF SPACE

BEST COPY AVAILABLE

Teacher Talk	Phrase																							
	Sentence																							
Student Talk	Sentence																							
	Phrase																							

Introduction

Many variables can affect the pattern of talk flow as we have seen; only a few have been addressed by these schedules. Both nonverbal and verbal behaviors can be important factors, as was suggested in the conclusion to Schedule IV. In this final schedule we will be addressing an important nonverbal factor: the spatial relations between the speakers while talking.

The Schedule

A. Behaviors to be Coded

This schedule, as you may have noticed, is a reversion to the format of Schedule I. Teacher and student talk are monitored sequentially, with the only distinction being between sentences and phrases. The only differences between Schedules I and VI lie in their respective coding symbols. In fact, if the teacher you observed did not move around the room, you need not make another observation, but can recode your original talk flow schedule (Schedule I) following the directions below.

B. Using the Schedule

Make a map of the class you will be observing. On this map, note the seating of all students and identify these students.

Next, divide your map into eight "zones." Try to make the zone boundaries conform to natural features in the classroom arrangement, such as rows of desks, etc., even if this means making the zones irregular. This will make coding your schedule much easier.

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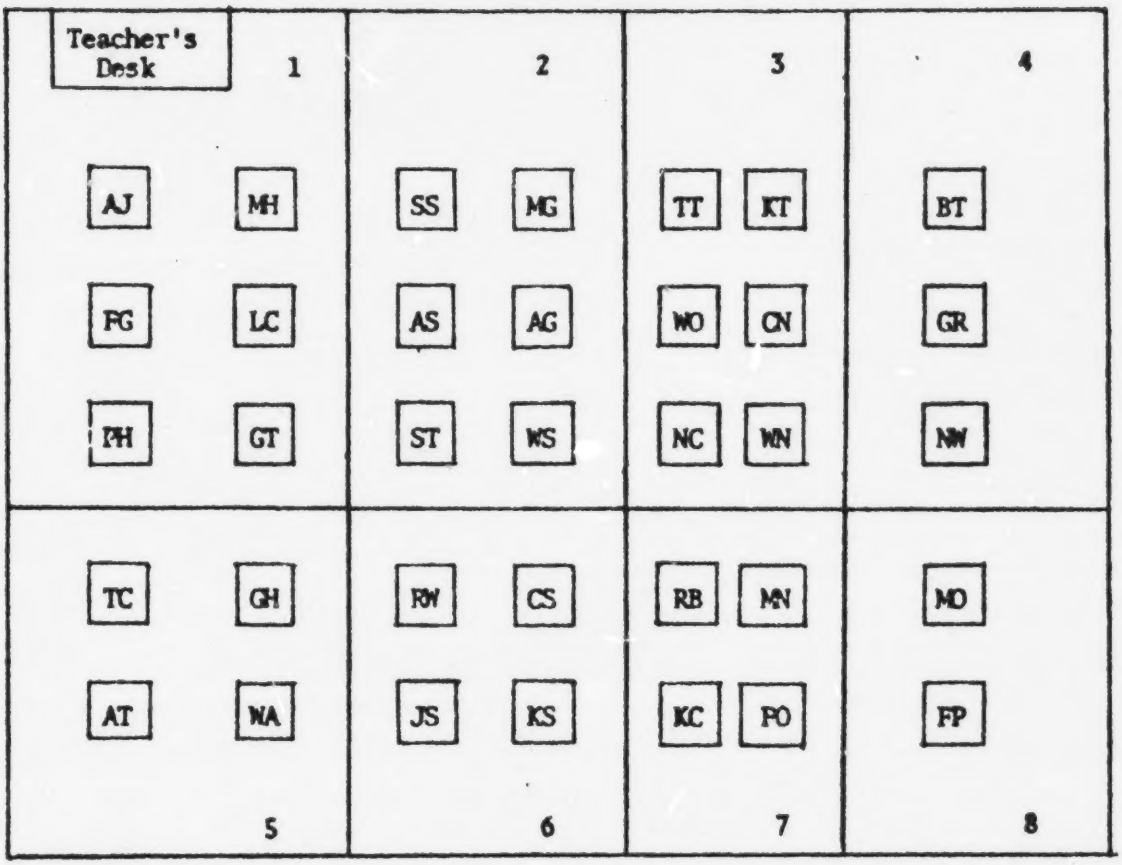
On your map, number the zones as in the example below:



NOTE: There is nothing sacred about having eight zones; you may wish to use more or less than eight, depending on the class. Remember, though, that as you increase the number of zones, the number of coding decisions increases; as you decrease the number, you may make coding simpler, but lose precision in your coding and subsequent analysis.

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The coding symbols are familiar, with one addition:

1. Tally mark. The basic entry, but as in Schedule I, tallies are in this schedule used to code both phrases and sentences.

2. [MO] Student's initials. Use, as always, to code the first entry in a student utterance. Subsequent utterances by that student should be coded with tallies.

3. 1, 2, 3, . . . 8 Zone Numbers. Used as the first entry in a teacher utterance spoken from that zone. As long as the teacher remains in that zone, code subsequent utterances with tallies.

Remember: Student utterances should be coded by initials, not zones, since the student zones can be obtained from your map. If, however, a student should move from his mapped zone and speak, record the first entry with initials, still, but place the zone number above the initial (see sample coding).

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Sample Coding

Teacher Talk	Phrase					/					/											
	Sentence	1	/				2	3	/					4	/				/	/		/
Student Talk	Sentence			RW	/					/		FP	/			5 RW	/	/				
	Phrase																				/	

The teacher, in Zone 1,talks, RW (in Zone 6--see map) answers in two sentences. The teacher replies with a phrase and walks through Zone 2 to Zone 3, talking as he moves. RW speaks again; the teacher replies with a phrase. FP (in Zone 8) speaks, and the teacher moves to Zone 4 to reply. RW (who has moved and is standing now in Zone 5) utters three sentences. The teacher, still in Zone 4, replies; RW responds with a phrase, and the teacher replies with a sentence.

After you have made your codings, go back to the beginning and, using the map and schedule, write the students' zones above their initials in a different color ink. You are now ready to analyze your patterns.

Questions for Analysis

1. In which zones does the teacher tend to stand when talking?

2. When in those most frequent zones, with which student zones does the teacher interact most frequently? For example, when standing in Zone 1, does the teacher interact most with students from Zone 6? With students from Zone 1? Zone 2? etc. Do the students in those zones share characteristics other than their spatial proximity?

3. When a student from somewhere in the room speaks, does the teacher tend to move so as to maintain a constant distance between him and the student? That is, when you have codings showing the teacher speaking from a particular zone, and then a coding for a student utterance, does the teacher consistently move then into a new zone some regular distance from the speaker?

   3a. Are there some students or kinds of student toward whom the teacher doesn't act in this way? Who are these?

4. Does the teacher's movement into a zone tend to increase the frequency of utterances from students in that zone? Decrease it?

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5. Do some students or kinds of student seem to talk as much regardless of where the teacher is when they speak? Does the talk of these students result in subsequent movement by the teacher toward their zone?

6. Are there some zones into which the teacher never goes? Are there some zones from which students never speak? Which students or kinds of student are in these zones?

Conclusion

We need only see how carefully a hostess arranges her living room furniture before a cocktail party to realize that spatial relationships exert tremendous influence over the flow of conversation. So, too, in the classroom. On the overt level, you can use this schedule to observe how the teacher's use of space affects classroom talk flow. But again, by looking at characteristics of students either included or excluded from discussion by the teacher's use of space, you can begin to see the "hidden curriculum" at work.

SCHEDULE VI: USE OF SPACE

BEST COPY AVAILABLE

Teacher Talk	Phrase																								
	Sentence																								
Student Talk	Sentence																								
	Phrase																								

Teacher Talk	Phrase																								
	Sentence																								
Student Talk	Sentence																								
	Phrase																								

Teacher Talk	Phrase																								
	Sentence																								
Student Talk	Sentence																								
	Phrase																								

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SCHEDULE VI: USE OF SPACE